

# LONG TERM BENEFIT OF A TARGETED DIABETES EDUCATION PROGRAM: THE KK CHINI EXPERIENCE.

***Nor Azam K<sup>1</sup>, Bustamanizan B<sup>2</sup>, Asyikin Z. <sup>2</sup>, Hafizah P<sup>3</sup>***

***<sup>1</sup>Department of Family Medicine, International Islamic University Malaysia, Pahang.***

***<sup>2</sup>Klinik Kesihatan Chini, Pekan, Pahang.***

***<sup>3</sup>Department of Community Medicine, International Islamic University Malaysia, Pahang,***

## INTRODUCTION

Knowledge empowers people, hence diabetes education is the basic yet an integral part in DM management. It may motivates patients as well as reinforces their adherence, self-care and therapeutic lifestyle modification.

## OBJECTIVE

We aim to evaluate the one-year outcome of a diabetes education program on a targeted group of diabetic patients at a primary health clinic in Pekan, Pahang.

## METHODOLOGY

This is a cohort survey recruiting poorly controlled diabetic patients into a locally designed education program at KK Chini. The four-hour program consists of empowering the small group of 5-6 patients with self-care practices given by doctor, diabetes educator, nutritionist, occupational therapist, and pharmacist. The cohort of 37 patients participated in 2017 and 2018 with complete record were included in this study. All relevant diabetes management information before and one year after the program were obtained. The difference between these two set of data were analysed using SPSS 24.0 version.

## RESULTS



### Cohort (n= 37)

Men : 68.6%  
Age > 60 year : 65.7%  
Malay : 100%  
FELDA settler : 100%

### Co-morbidities



#### Hypertension

Pre: 62.9%  
Post: 68.6%  
p= 0.50



#### Overweight

Pre 45.7%  
Post 45.7%  
No new incidence

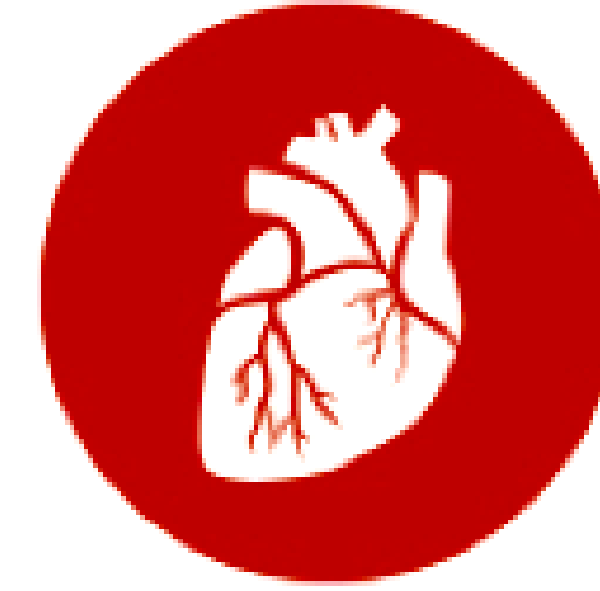


#### Dyslipidemia

Pre 54.3%  
Post 54.3%  
No new incidence

## RESULTS

### Diabetic Complications



#### CVD

Pre 0%  
Post 0%  
No new incidence



#### Eye

Pre 20%  
Post 20%  
No new incidence



#### Foot

Pre 2.9%  
Post 2.9%  
No new incidence



#### CKD

Pre 0%  
Post 2.9%  
p= 0.10

### Clinical parameters



#### Mean HbA1c

Pre: 9.8 (2.4)  
Post: 8.6 (2.1)  
p= 0.003\*



#### Mean FBS

Pre: 10.5 (4.6)  
Post: 9.2 (3.0)  
p= 0.066



#### Mean Creatinine

Pre: 89.1 (18.5)  
Post: 91.1 (24.4)  
p= 0.484



#### Mean Body weight

Pre: 67.5(12.7)  
Post: 67.6 (13.1)  
p= 0.774



#### Total insulin dose (unit)/ day

Pre: 1.5 (6.1) - 4.6 (13.3)  
Post: 2.2 (9.3) - 6.7 (16.0)  
p= 0.138—0.589

## CONCLUSION

A significant reduction in mean HbA1c of 1.2% was noted one year after the program. For the same duration of time, there were no significant difference in term of co-morbidities, diabetic complications, other clinical parameters and the total dose/day of diabetic medications (ODAs, insulin).

Diabetic education program which is structured, multi-disciplinary and targeted on poorly controlled patients is shown to be beneficial for glycaemic control in a one-year outcome study without the need for intensification of therapy.

## REFERENCES

- 1.A brief structured education programme enhances self-care practices and improves glycaemic control in Malaysians with poorly controlled diabetes M. Y. Tan et al. Health Education Research, Volume 26, Issue 5, October 2011, Pages 896–907,
- 2.Short and long-term outcomes from a multisession diabetes education program targeting low-income minority patients: a six-month follow up. Ryan JG et al. M.Clin Ther. 2013 Jan;35 (1):A43-53
- 3.Impact of diabetes education and self-management on the quality of care for people with type 1 diabetes mellitus in the Middle East (the International Diabetes Mellitus Practices Study, IDMPS) Juan José et al. Diabetes Research and Clinical Practice. Volume 147, January 2019, Pages 29-36